



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,311	04/21/2006	Constantinos Sideris	3003-1136-1	4650
465 7590 04/01/2009 YOUNG & THOMPSON 209 Madison Street Suite 500 ALEXANDRIA, VA 22314			EXAMINER DAVIS, ROBERT B	
			ART UNIT 1791	PAPER NUMBER
			MAIL DATE 04/01/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/568,311

Applicant(s)

SIDERIS, CONSTANTINOS

Examiner

Robert B. Davis

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-54 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 29-50, 52 and 53 is/are rejected.
- 7) ☒ Claim(s) 51 and 54 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CIS)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____
- Paper No(s)/Mail Date 2/16/06

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 29-40, 42-45, 48, 52 and 53 are rejected under 35 U.S.C. 102(b) as being anticipated by Borer (2,789,312: figures 5-13 and 15).

3. Borer teaches an injection blow molding assembly comprising: a mold set (figure 15) wherein a preform is molded in an array of preform injection molding cavities (133, 134) located in a center of the mold set, and a set of blow molds (136, 137) on the either side of the injection mold array as illustrated in figure 15, the injection and blow molds (133, 134, 136, 137) attached to a stationary platen (139) and an opposed movable platen, the blow molding cavities and the injection molding cavities have a common mold separation direction, the blow molding cavities are arranged with their longitudinal axes extending generally perpendicularly to the common mold separation direction, with the necks of the blow molding cavities disposed adjacent the edge of the mold set as illustrated in figure 15. As illustrated in figure 6, the mold set is opened and closed in a common direction. The molds are removable as illustrated in figures 8 and 10. The reference also discloses a method of injection molding preforms in the central array of injection molding cavities (133, 134), rotating the injection molding cores (142, 143) to transfer injection molded preforms to two blow molds (136, 137), wherein the

preforms are molded into blown articles in the blow molds at the same time as the injection molded of a second set of preforms in the injection molding cavities.

4. Claims 29, 36-40, 42, 43, 45, 48, 52 and 53 are rejected under 35 U.S.C. 102(b) as being anticipated by Farrell (4,579,518: figures 2, 3 and 5).
5. Farrell teaches a mold set having an injection mold having an array of injection molding cavities that mold preforms (112, 112) and a blow mold having an array of blow molding cavities that mold blown articles (117), the molds attached to a turntable (110), wherein the core rods (111, 111) transfer the injection molded preforms from the injection mold (116) to the blow mold (118), the injection molds and blow molds each have the same separation direction. The blow molding cavities are arranged with their longitudinal axes extending generally perpendicularly to the common mold separation direction. The necks of the blow molds are also disposed adjacent the edge of the mold set as illustrated in figure 2.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 41, 46, 47, 49 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell taken together with Duga (4,140,468: figures 2-9 and column 5, lines 43-62).

8. Farrell discloses all claimed features except for the use of a stretching rod in conjunction with the blow mold and a neck mold that transfers the parison from the injection mold to the blow mold.
9. Duga discloses an array of injection molds (figure 8) having a plurality of neck cavity molds (38) that serve to transfer the preforms from the injection molds (33) to the blow molds (51), wherein the blow molds have a blow stretch rod (59) introduced into the blow mold to stretch the preform within the blow molding cavity.
10. It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of Farrell by using a neck mold common to the blow mold and the injection mold to transfer preforms from the injection mold to the blow mold as disclosed by Duga as such allows for the simple transfer of preforms and the use of a dedicated injection core rod and a dedicated stretch rod in the respective injection and blow molds such that the preforms can be stretched within the blow mold such that the parison is oriented mechanically during the blow molding process. The substitution of a neck core transfer means for a core rod transfer means allows for the injection molded parison to be formed with neck threads in the injection mold and is a simple substitution of one well known transfer means for another. It would have been further obvious to modify the blow mold of Farrell by using a stretch rod as disclosed by Duga for the purpose of mechanically aligning the preform during the blowing step. Such a modification of the neck molds for the core rods as the preform transfer means would result in an integral multiple of the injection molding cavities.

Allowable Subject Matter

11. Claims 51 and 54 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art of record teach or suggest a mold set having an array of blow molds and injection molds attributed to a mold set wherein each of the arrays has a common separation direction, the blow molding cavities have longitudinal axes perpendicular to the separation direction and the necks of the cavities are adjacent to the edge of the set, wherein the mold set further has thermal conditioning means for exposing the injection molded preforms to a thermal conditioning step following injection molding thereof and prior to blow molding. None of the claims have been interpreted as having means-plus-function limitations and have been given their broadest possible interpretation.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert B. Davis whose telephone number is 571-272-1129. The examiner can normally be reached on Monday-Friday 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert B. Davis/
Primary Examiner, Art Unit 1791
3/30/09